



National Aeronautics and Space Administration  
Goddard Space Flight Center

Wallops Flight Facility, Wallops Island, Virginia

# Inside Wallops

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## ***NASA Administrator Highlights Agency's Role In Improving Climate and Weather Prediction***

In a keynote address to weather forecasters at their annual convention, NASA Administrator Daniel S. Goldin outlined the space agency's role in studying Earth's climate — a commitment to scientific research and technology development that will help forecasters make more accurate weather predictions in the new millennium.

Speaking to the American Meteorological Society convention in Long Beach, CA, Goldin discussed how NASA technology and climate studies can help predict such dramatic events as El Nino and La Nina — providing advance notice that saved America billions of dollars last year alone.



For the future, NASA has set goals for its Earth Sciences research and technology development projects that may result in new satellite technologies and models to help National Weather Service replace the common three- to five-day forecasts of today with accurate 10- to 14-day forecasts, Goldin added.

With the use of satellite data and better computer modeling techniques, meteorologists in the next ten years may be able to predict El Nino weather conditions up to 15 months in advance and detect hurricanes far enough ahead to help protect lives and property, Goldin told the meteorologists.

Ongoing Earth Science missions that contribute to our understanding of the global climate include:

\* Landsat 7, an Earth-mapping satellite that provides imagery of the planet for use in understanding natural events all over the world. Building on a 27-year heritage of data, Landsat 7 can help researchers understand the effects of hurricanes and their flooding of coastal regions, as well as monitor natural fires and droughts all over our planet.

\* Quikscat, a satellite launched last spring that tracks wind currents over the ocean's surface. This information can help scientists understand the interactions between Earth's oceans and the atmosphere and help them predict the evolution and movement of severe storms.

\* TOPEX/POSEIDON, a NASA-French mission that uses radar to study ocean-surface topography and heat content, two more clues into how El Nino and other ocean events affect the weather.

\* The Tropical Rainfall Measuring Mission, a NASA-Japanese mission that continues to provide profound new insights into events such as hurricanes, modeling them in three dimensions while showing how energy is used within the storm. This knowledge will help experts understand how these most violent of Earthbound storms work.

Experimental forecasts done last fall using this satellite's data demonstrated much better tracking of some of the year's devastating East Coast hurricanes, including Dennis and Floyd.

\* The ACRIMSAT mission, launched last month, will measure how changes in the Sun's energy affect Earth's climate.

\* Terra, also launched last month, will enable new research into the ways that Earth's lands, oceans, air, ice and life function as a planet-wide system. In the coming months and years, this major "Earth Observatory" will provide new insights into how our home planet behaves.

More information about NASA's Earth Science Enterprise can be found on the Internet at: <http://www.earth.nasa.gov>

## ***Center Director's Next All Hands on Jan. 28***

Employees are invited to join Center Director Diaz in an "All Hands" session on Jan. 28 beginning at 1 p.m. via Wallops TV, Channel 6 or in Bldg. 8 auditorium at Greenbelt.

Director Diaz will offer a review of the year that unfolded with many challenges as well as significant achievements. How did we do? What's in store for 2000?

Call the Office of Public Affairs at x1579 with comments or questions on this event.

## ***Wallops Shorts..... A First for the Scientific Balloon Program***

For the first time, the NASA Scientific Balloon Program recently had two long duration balloon flights in the air at the same time when two 29.47 million cubic foot NASA scientific balloons were successfully launched from McMurdo, Antarctica. The first, carrying a solar physics experiment, was launched on Jan. 10. Dr. David Rust, Johns Hopkins University was the principal investigator. This was followed by the launch on Jan. 11 of a balloon carrying a high-energy astrophysics experiment for the University of California, Berkeley. Dr. Robert Lin was the principal investigator.

## ***Volunteers Needed for Engineer's Week***

In 1951, the National Society of Professional Engineers established National Engineers Week (NEW) to take place each year near George Washington's birthday. The nation's first president was an engineer and land surveyor and established the first call for an engineering school that led to the founding of West Point.

National Engineers Week 2000 is February 20 through 26.

During NEW, more than 35,000 engineers nationwide work with more than four million school students and teachers to conduct in-class and extracurricular programs. Engineers bring their profession to the public with exhibitions at local shopping malls, science centers and libraries. They also conduct hands-on demonstrations and provide resource materials and displays.

The Wallops Flight Facility is offering to have its engineers, scientists and technicians visit classrooms in Virginia and Maryland during NEW. Personnel will describe their careers and related current curriculum to their professions. Subject areas are mathematics engineering, computer science, Earth science and physics.

The visits are open to classrooms in grades 6 through 12. At the present time, (Jan. 14) we have requests from seven schools for presentations to 26 classes.

Wallops employees (civil service and contractor) who are interested in participating in the school visits should contact Betty Flowers, x1584 ([elizabeth.b.flowers.1@gsfc.nasa.gov](mailto:elizabeth.b.flowers.1@gsfc.nasa.gov)) or Keith Koehler, x1579 ([keith.a.koehler.1@gsfc.nasa.gov](mailto:keith.a.koehler.1@gsfc.nasa.gov))

**Another Green Christmas**  
by Ted Wilz, Senior Meteorologist

Folks in the Wallops Weather Office tried in vain once again to bring a pretty dusting of light snow to the area by Christmas Eve. All we were able to muster was about one-half an inch of snow on Dec. 28. We weren't able to do much better with rainfall. Total rainfall for Dec was only 1.87 inches, well below our average of 3.19 inches.



Not only was December a dry month, the warm trend continued that we've been graced with so far this winter. No new record highs were set, but there were six days when the temperature hit 60° or better. A reading of 67° on Dec. 5 was the warmest for the month.

Appropriately, the coldest temperature of the month was recorded on Christmas morning when the thermometer dropped to 18°. No new record lows were set during December. Temperatures averaged 1.6° above normal for the month.

What can we expect in February? It is normally one of the colder, grayer months for the Eastern Shore. Average daily high temperatures start out in the mid-40s at the beginning of the month with a gradual warming trend to around 50° at the end of the month. Average low temperatures range from the mid-20s at the beginning of the month to around 30° at the end of the month.



There are usually nine days during February with measurable precipitation and two days with measurable snowfall. We generally average 3.07 inches of precipitation during February. Historically, it also is the month with the most snowfall with 3.4 inches being the norm.

We've been very fortunate so far and escaped all the major cold Arctic outbreaks that can make life a bit miserable. Even though temperatures have been mild, winter will be with us for a couple of more months and a major winter storm is still possible. Keep emergency supplies handy.

**More Pennies to the Mile**  
from FEDweek, Jan. 12 Issue

Effective January 14, the mileage reimbursement rate for federal employees who use privately owned vehicles for official travel rose from 31 cents to 32.5 cents, largely a reflection of higher gasoline prices. The change parallels the new IRS standard mileage rate for tax deductibility purposes, which rose from 31 to 32.5 cents effective January 1.

The reimbursement rates for using personal motorcycles and airplanes for duty purposes, 26 and 88 cents per mile respectively, are staying the same.

**New Aerobic Session**

Come work off those holiday pounds and relieve that stress too!

Lunch Time Classes: Monday through Thursday half-hour classes are held on the stage in the Gym (Bldg. D-10) from 11:30 a.m. to noon.

Evening Classes: Monday and Wednesday classes are held on the gym floor from 5 p.m. to 6 p.m.

For further information contact Annette Conger, x2596 or by email: annette.m.conger.1@gsfc.nasa.gov

**Academic Achievement Award**

The Wallops Black History Club is offering one \$800 Academic Achievement Award to the son or daughter of a Wallops employee (NASA, NOAA, SCSC, Coast Guard or contractor). The award will be presented on a competitive basis to a student who has been accepted to an accredited university or college, is pursuing a degree in science or technology and completes an application that also includes an essay.

For more information or an application contact Audrey Young, x2394.

**Tips from the Gardner**

Chances are you have a new poinsettia to care for. Believe it or not, poinsettias are unique landscape plants that can grow to six feet tall.



Place your poinsettia outside in bright light to help it recover from having been indoors for several weeks.

In March, plant it outside in full or part sun in a rich, well-drained soil. Don't place the poinsettia near a streetlight, because the light at night may prevent it from flowering. Prune the plant's stems back to 4 to 6 inches after planting. Apply a balanced fertilizer containing minor elements every two months. Trim the plant as needed during the growing season, but don't prune it after the first part of September.

Downy mildew is appearing on some rose varieties. Watch for purple spots with a brown center on leaves and canes. Treat with an appropriate fungicide once a week.

**Safety Message From the Administrator**

**Health Program Vulnerability Assessment**

Early this year I outlined our Agency Safety Initiative to improve the risk management processes in use within NASA.

I want to emphasize another facet of our safety initiative that is equally important: assessing health improvement. By "health" I mean the prevention of harmful exposure to chemical, physical and biological hazards and the proactive delivery of health care services to prevent disease.

To achieve this goal we must answer some fundamental questions: Are we conducting baseline assessments of all operations to identify all potentially hazardous exposures to chemicals and physical operations? Have we all conducted a vulnerability assessment to gauge the worst scenarios for chemical release? How ready is each Center to respond to those releases? Have we taken a closer look at our capability for providing lifesaving services? After downsizing, have we maintained the core capabilities we need to assure the health of our workforce? By focusing on these types of questions, managers can help assure and improve the health of our workforce.

For more on this health topic, go to: <<http://pao.gsfc.nasa.gov/gsfsc/gnews/010700/010700.htm#safe>> or go directly to the Occupational Health web site at <<http://ohp.ksc.nasa.gov>>

**Wallops Fire Department Responses**

**Jan. 1 to Jan. 12, 2000**

- 18 - Aircraft Standby
- 3 - Fire Alarms
- 2 - Ambulance Calls
- 1 - Mutual Aid response to a house fire in Oak Hall

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